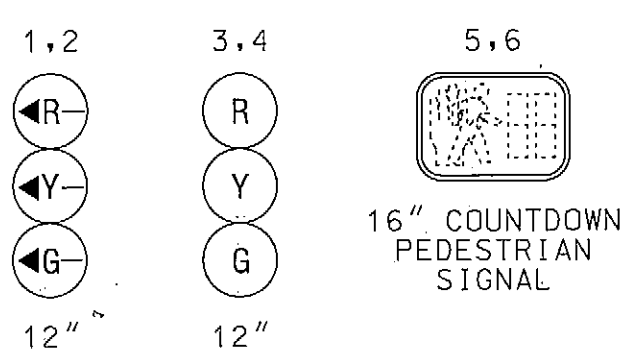
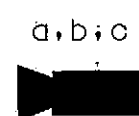


MD 118 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

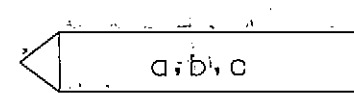
PROPOSED LED SIGNALS



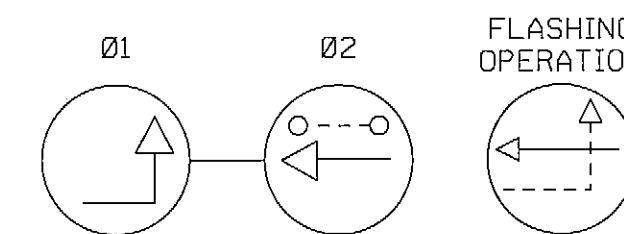
PROPOSED VIDEO DETECTION CAMERAS



PROPOSED VIDEO DETECTION ZONE



NEMA PHASING

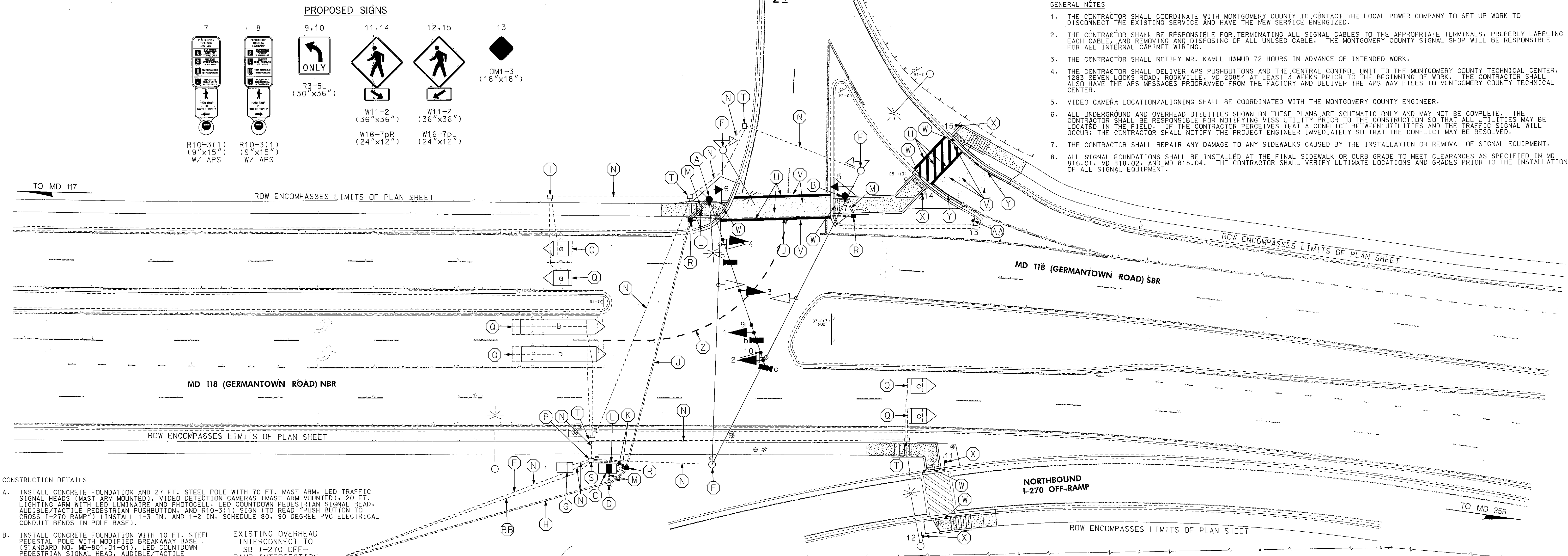


PHASING NOTES:

- PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
- PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.

GENERAL NOTES

- THE CONTRACTOR SHALL COORDINATE WITH MONTGOMERY COUNTY TO CONTACT THE LOCAL POWER COMPANY TO SET UP WORK TO DISCONNECT THE EXISTING SERVICE AND HAVE THE NEW SERVICE ENERGIZED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS, PROPERLY LABELING EACH CABLE, AND REMOVING AND DISPOSING OF ALL UNUSED CABLE. THE MONTGOMERY COUNTY SIGNAL SHOP WILL BE RESPONSIBLE FOR ALL INTERNAL CABINET WIRING.
- THE CONTRACTOR SHALL NOTIFY MR. KAMUL HAMUD 72 HOURS IN ADVANCE OF INTENDED WORK.
- THE CONTRACTOR SHALL DELIVER APS PUSHBUTTONS AND THE CENTRAL CONTROL UNIT TO THE MONTGOMERY COUNTY TECHNICAL CENTER, 1283 SEVEN LOOKS ROAD, ROCKVILLE, MD 20854 AT LEAST 3 WEEKS PRIOR TO THE BEGINNING OF WORK. THE CONTRACTOR SHALL ALSO HAVE THE APS MESSAGES PROGRAMMED FROM THE FACTORY AND DELIVER THE APS WAV FILES TO MONTGOMERY COUNTY TECHNICAL CENTER.
- VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE MONTGOMERY COUNTY ENGINEER.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO THE CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO ANY SIDEWALKS CAUSED BY THE INSTALLATION OR REMOVAL OF SIGNAL EQUIPMENT.
- ALL SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE TO MEET CLEARANCES AS SPECIFIED IN MD 616.01, MD 618.02, AND MD 618.04. THE CONTRACTOR SHALL VERIFY ULTIMATE LOCATIONS AND GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.



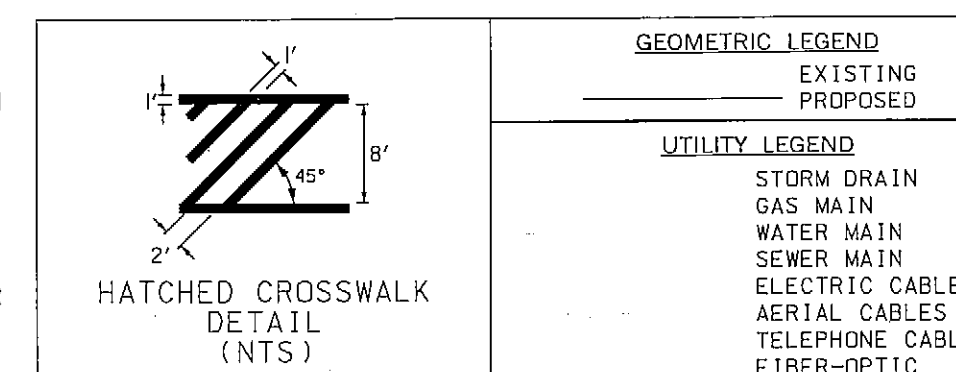
CONSTRUCTION DETAILS

- INSTALL CONCRETE FOUNDATION AND 27 FT. STEEL POLE WITH 70 FT. MAST ARM, LED TRAFFIC SIGNAL HEADS (MAST ARM MOUNTED), VIDEO DETECTION CAMERAS (MAST ARM MOUNTED), 20 FT. LIGHTING ARM WITH LED LUMINAIRE AND PHOTOCELL, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON, AND R10-3(1) SIGN (TO READ "PUSH BUTTON TO CROSS I-270 RAMP") (INSTALL 1-3 IN. AND 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
- INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE (STANDARD NO. MD-801.01-01), LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON, AND R10-3(1) SIGN (TO READ "PUSH BUTTON TO CROSS I-270 RAMP") (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN POLE BASE).
- INSTALL CONCRETE FOUNDATION AND NEMA TYPE 'S' BASE MOUNTED CABINET AND CONTROLLER WITH VIDEO DETECTION INTERFACE EQUIPMENT, UNINTERRUPTIBLE POWER SUPPLY, 2-WIRE CENTRAL CONTROL UNIT AND ALL ASSOCIATED EQUIPMENT (INSTALL 2-2 IN. AND 2-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN CABINET BASE).
- INSTALL 100 AMP METERED SERVICE PEDESTAL (1-4 IN. AND 3-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
- DISCONNECT EXISTING UNDERGROUND POWER FEED (TO BE DONE BY OTHERS).
- REMOVE EXISTING STRAIN POLE, SPAN WIRE, AND ALL ASSOCIATED EQUIPMENT. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
- REMOVE EXISTING SIGNAL CONTROLLER CABINET. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL. NOTIFY MONTGOMERY COUNTY SIGNAL SHOP TO REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CABINET.
- INSTALL 4 IN. SCHEDULE 80 PVC ELECTRICAL CONDUIT (TRENCHED) FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE. CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT PEPCO #728493-1663 FOR USE BY OTHERS. INSTALL 3 1-CONDUCTOR ELECTRICAL CABLE, NO. 2/0 AWG, TYPE THHN FROM THE METER TO THE BASE OF THE UTILITY POLE WITH 35 FT. OF COIL SLACK AT THE BASE OF THE POLE.
- INSTALL 4 IN. SCHEDULE 80 PVC ELECTRICAL CONDUIT (BORED).
- INSTALL 4 IN. SCHEDULE 80 PVC ELECTRICAL CONDUIT (TRENCHED).
- INSTALL 3 IN. SCHEDULE 80 PVC ELECTRICAL CONDUIT (TRENCHED).
- INSTALL 2 IN. SCHEDULE 80 PVC ELECTRICAL CONDUIT (TRENCHED).
- CAP AND ABANDON EXISTING CONDUIT.
- DISCONNECT, PULL BACK, AND REROUTE EXISTING INTERCONNECT CABLE THROUGH PROPOSED CONDUIT TO PROPOSED CABINET.
- ABANDON EXISTING LOOP DETECTOR. REMOVE ALL ASSOCIATED LEAD-IN CABLE.
- INSTALL ELECTRICAL HANDHOLE.

- USE EXISTING HANDHOLE.
- REMOVE EXISTING HANDHOLE.
- INSTALL 12 IN. WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINE FOR CROSSWALK.
- REMOVE EXISTING PAVEMENT MARKINGS.
- INSTALL MODIFIED SIDEWALK RAMP (SEE SG-02) AND DETECTABLE WARNING SURFACE (STANDARD NO. MD-655.40).
- INSTALL GROUND MOUNTED SIGN(S) ON ONE 4"x6" WOOD SUPPORT.
- INSTALL 5 IN. WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINE (SOLID).
- INSTALL 5 IN. WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINE (3' LINE, 3' GAP).
- INSTALL GROUND MOUNTED SIGN(S) ON ONE 4"x4" WOOD SUPPORT.
- USE EXISTING CONDUIT.

GENERAL NOTES (CONTINUED)

- ALL EXISTING TRAFFIC EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
- LOCATIONS OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SECTIONS 4E.08 AND 4E.10 AND FIGURES 4E-3 AND 4E-4 AND THE NCHRP PUBLICATION "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18 INCHES FROM A 60-INCH BY 60-INCH LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2 PERCENT.
- THE 10-FOOT MINIMUM SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM THE FACE OF THE PUSHBUTTON TO THE FACE OF PUSHBUTTON, NOT FROM CENTER OF POLE TO CENTER OF POLE.
- ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.
- ALL CROSSWALKS SHALL BE CENTERED TO THE PROPOSED SIDEWALK RAMPS.
- REFER TO DETAIL SHEET SG-02 FOR CURB RAMP DETAILS AND SIGNAL POLE LOCATIONS.



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

**MD 118 (GERMANTOWN ROAD) AT
NORTHBOUND I-270 ON-RAMP
GERMANTOWN, MARYLAND**

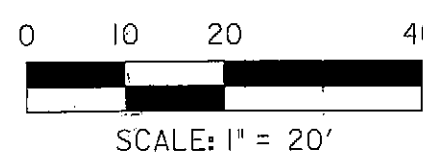
TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20' DATE FEBRUARY 1994 CONTRACT NO. M-401-511-372

DESIGNED BY W. CARLSON COUNTY MONTGOMERY
DRAWN BY R. CICCHINI LOGMILE 15011806.37
CHECKED BY STEVE RENZI T.I.M.S. NO.
F.A.P. NO. T.O.D. NO.

T.S. NO. 3418C SG-01 OF SG-03 SHEET NO. 1 OF 3

APPROVALS	REVISIONS
TEAM LEADER	
ASST. DIV. CHIEF	
DIVISION CHIEF	
OFFICE DIRECTOR	



PLOTTED: Friday, August 09, 2013 AT 01:17 PM
FILE: I:\3212 - TDD\23 (PB 15) - MD 118, MD 105 Signals\Design\Engineering\PlanSet\MD 118 at I-270 North Ramp (TS 3418)SG-001_TS3418A.dgn

BY: NLMonaco

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